

Claims

1. A rail profile (1,2) and presentation device produced therewith, the rail profile (1,2):

- a) being intended to be fastened to a supporting structure (9);
- 5 b) having arranged within it a conductor rail (3) which is supplied via a power supply and has conductors (35,36) partially embedded in an insulation profile (30);
- c) having a passage (10,20) which extends from the front entry into the profile rail (1,2), runs continuously at least substantially along the rail profile (1,2),
10 ends at a back strut (11,21) and permits the engagement of an adaptor (4) for the conductor rail (3) to the conductors (35,36) in a freely selectable position in order to supply a consumer (79), which can be connected via a supply line (46,78), characterized in that
- d) the rail profile (1,2) is provided for vertical installation in the supporting struc-
15 ture (9); and
- e) when installed, in principle only the passage (10,20) which emerges through a groove (92) in the supporting structure (9) is visible from the front side (90) of the supporting structure (9).

20 2. The rail profile (1,2) as claimed in claim 1, characterized in that

- a) the entry into the gap-shaped passage (10,20) is flanked by a left and a right access strut (12,13;22,23) which extends in each case as far as a left or right wing strip (14,15;24,25) which branch off at an angle and are intended for placing on the rear side (91) of the supporting structure (9);
- 25 b) each access strut (12,13;22,23) is continued behind the associated wing strip (14,15;24,25) in the direction of the back struts (11,21) as a left or right flank strut (121,131;221,231); and
- c) one of the flank struts (121,221) is offset to the outside, thus producing space for accommodating the conductor rail (3).

3. The rail profile (1,2) as claimed in claim 2, characterized in that

- a) the access struts (12,13;22,23) are provided toward the front side (90) of the supporting structure (9), at their free ends, in each case with a bent-over portion (120,130;220,230) as edge protection and edge border;
- 5 b) holes (140,150;240,250) for fastening elements, primarily screws (149,159), which are screwed into the rear side (91) of the supporting structure (9), are provided in the wing strips (14,15;24,25);
- c) the space for accommodating the conductor rail (3) is formed from two adjacent groove profiles (16,17;26,27) which are separated from each other
10 by a central web (18,28) which branches off from the adjacent flank strut (121,221) into the interior of the rail profile (1,2);
- d) the space for accommodating the conductor rail (3) has profilings (160,170;260,270) on which complementary outer contours (37) of the insulation profile (30) are supported; and
- 15 e) on the back strut (11,21) there is an inwardly facing, raised molding (110,210) as electrical grounding contact for the engaging adaptor (4).

4. The rail profile (1,2) as claimed in one of claims 1 to 3, characterized in that

- 20 a) the conductor rail (3) comprises the insulation profile (30), which in principle has a meandering cross section, and current-carrying wires (35,36) which are accommodated in wire grooves (33,34) and can be tapped off at least virtually over the entire axial extent of the current-carrying wires (35,36) via groove-shaped access points (31,32);
- 25 b) when inserted, the insulation profile (30) comes to lie in the two groove profiles (16,17;26,27) in a manner surrounding the central web (18,28), as a result of which the access points (31,32) to the current-carrying wires (35,36), which are set back in relation to the passage (10,20), in principle open perpendicularly to the passage (10,20);
- 30 c) the two access points (31,32) open on one side of the insulation profile (30) while the two current-carrying wires (35,36) are embedded on the other side of the insulation profile (30);

- d) grooves (111,112;211,212) are mounted on both sides within and upstream of the back strut (11,21), for engagement of a lock (45) of the adaptor (4); and
- e) the grooves (111,112;211,212) are formed by the back strut (11,21) and by strut sections (122,123;132,133;221;232,233) bounding the grooves (111,112; 211,212) laterally and toward the mouth of the passage (10,20).

5. The rail profile (2) as claimed in one of claims 1 to 4, characterized in that

- a) a grid of grooves (213) for accommodating hook-in lugs (83,84) of hooked-in brackets (82) is provided in the back strut (21); and
- b) the brackets (82) can be hooked in from the front side (90) of the supporting structure (9), in a manner protruding through the passage (20).

6. The rail profile (2) as claimed in claim 5, characterized in that

- a) two extensions (224,234) which are spaced apart from each other extend from the back strut (21) in the opposite direction to the mouth of the passage (20) and in between form a back groove (29) into which the hook-in lugs (83,84) of hooked-in brackets (82) protrude;
- b) an outwardly pointing outer wing (225,235) is attached to each extension (224,234), as a result of which the left and right wing strip (24,25) and the left and right outer wing (225,235) in each case lie parallel to one another; and
- c) holes (226,236) for fastening elements, primarily screws, which are screwed into a supporting framework or a building part to mount the rail profile (2) are provided in the outer wings (225,235).

7. The rail profile (2) as claimed in one of claims 1 to 6, characterized in that

- a) holding clips (5) are fastened opposite one another in pairs on the rear side (91) of a supporting structure (9) formed by a panel;
- b) a holding clip (5) comprises a vertical limb (50), placed on the rear side (91), and tongues (51) which are angled from the upper and lower end of the

vertical limb (50) and, bent at right angles to the rear side (91), leave a gap, corresponding to the material thickness of the wing strips (24,25);

- c) the tongues (51) are arranged at the spacing of systematic recesses (240,250) present on the wing strips (24,25);
- 5 d) a panel (9) provided with holding clips (5) can be hung therewith after the tongues (51) are pushed through the recesses (240,250) and lowered behind the wing strips (24,25);
- e) the holding clips (5) preferably being fastened on the rear side (91) of the panel (9) by means of screws (59).

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8. The rail profile (1,2) as claimed in one of claims 1 to 7, characterized in that the adaptor (4) comprises:

- a) a rotatable spindle (410);
- b) pivotable contact lugs (42,43) on the rotatable spindle (410) for current
15 collection from the current-carrying wires (35,36);
- c) a grounding contact (44) placed on the molding (110,210); and
- d) a locking element (45) which can be displaced with the rotation of the spindle (410) and, in the locked state where the contact lugs (42,43) lie on the current-carrying wires (35,36), engages in the grooves (111,112;211,212) on
20 the rail profile (1,2), so that the adaptor (4) can only be pulled out or pushed into the passage (10,20) if the tapping off of current is interrupted or has not yet been produced – the contact lugs (42,43) are removed from the current-carrying wires (35,36).

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9. The rail profile (1,2) as claimed in one of claims 1 to 8, characterized in that the rail profile (1,2) is produced as an aluminum extruded profile and the insulation profile (30) of the conductor rail (3) is produced as a plastic extruded profile.

10. A presentation device produced with the rail profile (1,2) as claimed in one of claims 1 to 9, characterized in that

- 5 a) a multiplicity of vertically arranged rail profiles (1,2) is inserted into a supporting structure (9) which can be assembled from a plurality of panels which stand in one or different vertical planes;
- b) the rail profiles (1,2) are fitted in a defined grid from each other and, in this case, rail profiles (2) are provided with the additional grooves (213) for the hooking-in of brackets (82), and optionally at least one rail profile (1) is provided without such grooves (213), i.e. only for the supply of current;
- 10 c) attached to a bracket (82) is:
 - ca) a supporting arm (8) protruding into the room, for the direct hanging of objects, for example items of clothing on hangers; or
 - cb) a supporting arm (8) protruding into the room, for the securing of a transversely running front bar (70) which is supported by at least one further such supporting arm (8) whose bracket (82) engages in an adjacent rail profile (2);
 - 15 or
 - cc) a supporting arm (8) protruding into the room, for securing a shelf (7) which is supported by at least one further such supporting arm (8) whose bracket (82) engages in an adjacent rail profile (2); or
 - 20 cd) a transverse support (85) arranged in the vicinity of the front side (90), for securing a slip-on arm (71) protruding into the room, the transverse support (85) being supported by at least one further bracket (82) which is hooked into an adjacent rail profile (2); and
- 25 d) at least one electrical consumer, for example a light (79), which is fitted, for example, under a shelf (7), is supplied by the rail profile (1), which only conducts current, via an adaptor (4) which can be plugged into the rail profile (1) in a freely selectable position.